

Tributary Strategy Revision

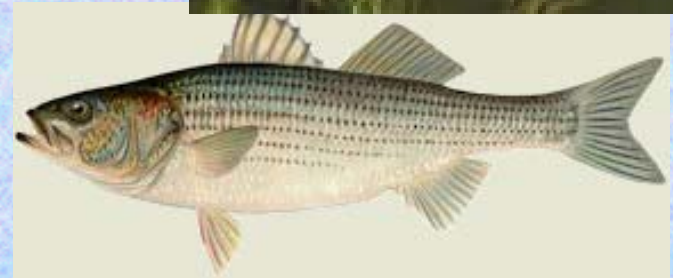
Lower James River Watersheds



Ernie Brown
Albemarle, Chowan & Coastal Watersheds
Regional Manager
August 7, 2003

Purpose of Tributary Strategies

- Restore and protect aquatic habitat for living resources
- Reduce, and “cap” nutrient and sediment loads
- Identify control actions that are practical, cost-effective, and equitable
- Develop stakeholder involvement and commitments



An aerial photograph showing a complex river network with multiple tributaries flowing into a large, dark blue body of water, which is Chesapeake Bay. The surrounding land is a mix of green and brown, indicating different land uses and vegetation. The title 'Basis for Tributary Strategies' is overlaid in large white text at the top center.

Basis for Tributary Strategies

- Chesapeake Bay 2000 Agreement
- Actions can't start at water's edge
- Each basin is different
- Each basin affects Chesapeake Bay differently

Basis for Tributary Strategy Program

- **Chesapeake 2000 Agreement:**
 - Water Quality Restoration and Protection
“complete a public process to develop and begin implementation of revised Tributary Strategies to achieve and maintain the assigned loading goals”

Basis for Tributary Strategy Program

- **State code** (tributary strategies act; Water quality improvement act)

“The plans shall be developed in consultation with affected stakeholders, including, but not limited to local government officials; Wastewater treatment operators; Seafood industry representatives; Commercial and recreational fishing interests; Developers; Farmers; Local, regional and statewide conservation and environmental interests...”

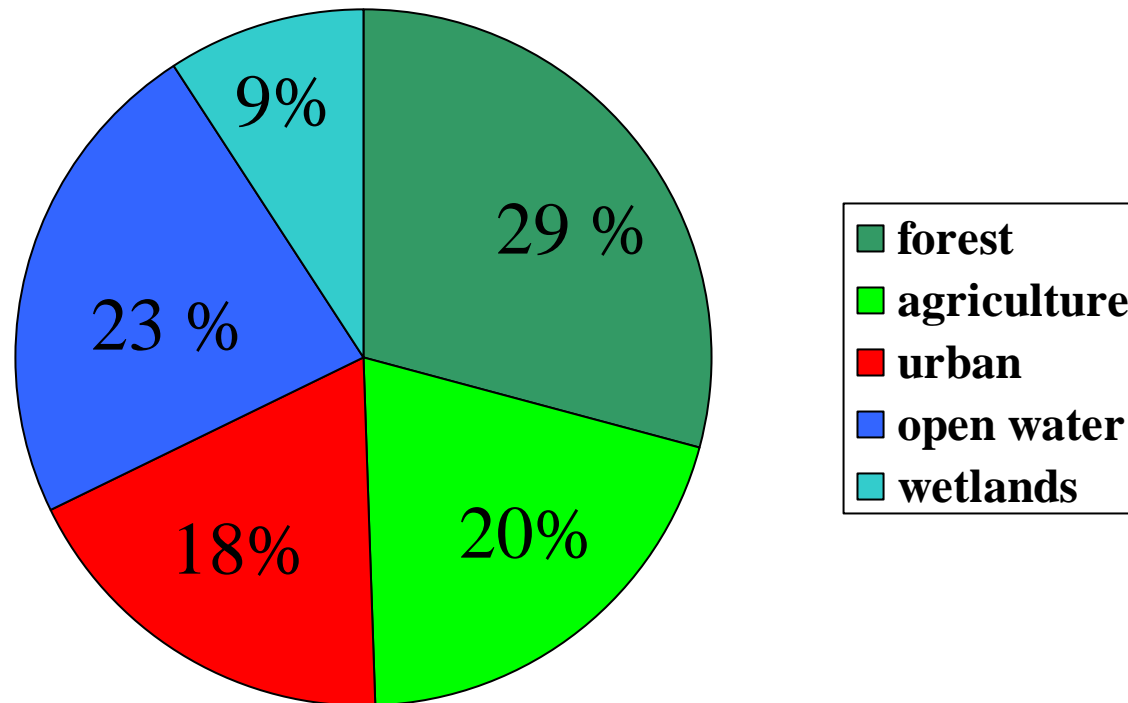
The Lower James River Watershed

(a Basin “Snapshot”)

- Area: 1,026 square miles.
- Counties: James City, Surry, Isle of Wight.
- Cities: Williamsburg, Hampton, Newport News, Norfolk, Suffolk, Chesapeake, Portsmouth & VA Beach
- Population: 1,188,475.
- Tributaries: Elizabeth, Nansemond Lynnhaven, Chickahominy, Warwick and Hampton rivers; Chuckatuck Creek.



Land Uses in the Lower James Watersheds



Original Tributary Strategy Goals

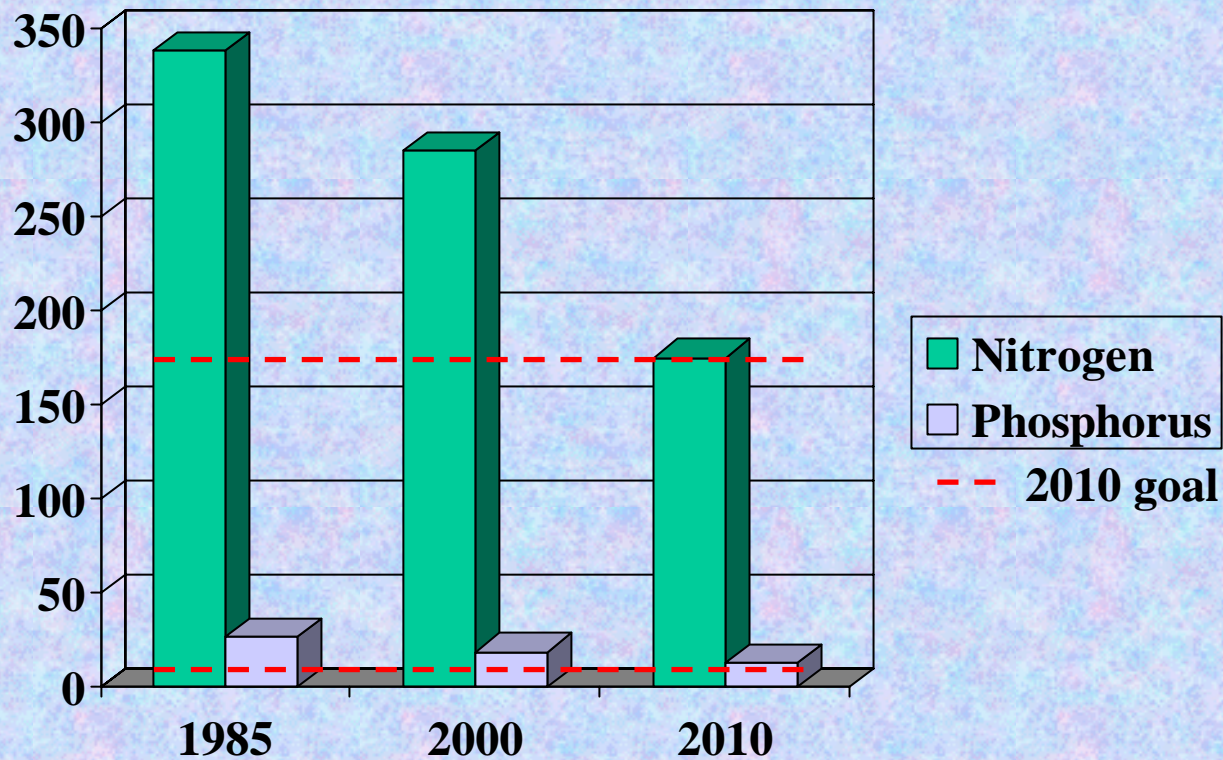
- BNR/BNR equivalent for areas draining directly to tidal fresh by 2010**
- Cap net nutrient loads to the lower estuary from all areas at 1996 levels**
- Reassess goals in 2005**

Nutrient/Sediment Progress



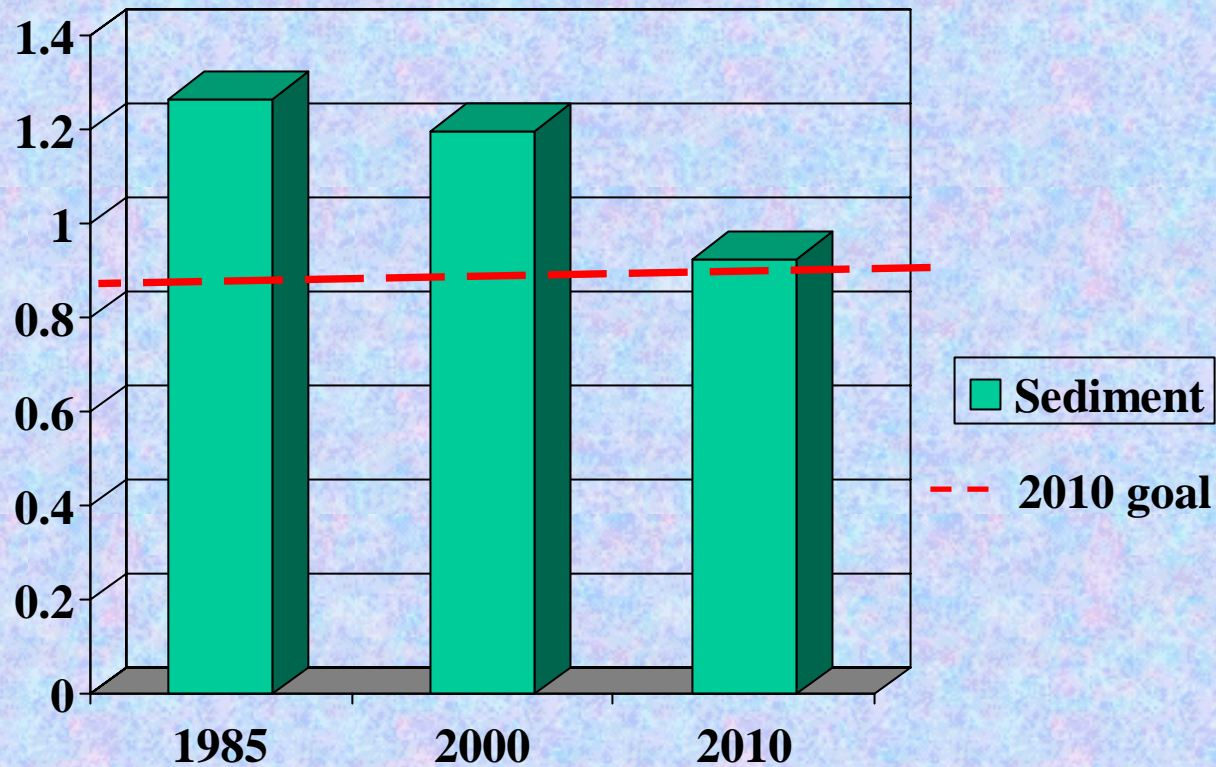
- Nitrogen (M lb/year)
 - 1985 Load: 46.0
 - 2000 Load: 35.5 (-24%)
 - 2010 Cap: 26.4 (-26%)
- Phosphorus (M lb/year)
 - 1985 Load: 8.47
 - 2000 Load: 5.69 (-33%)
 - 2010 Cap: 3.41 (-40%)
- Sediment (M tons/year)
 - 1985 Load: 1.27
 - 2000 Load: 1.2 (-5%)
 - 2010 Cap: 0.93 (-23%)

Baywide N&P Change with 2010 Goal*



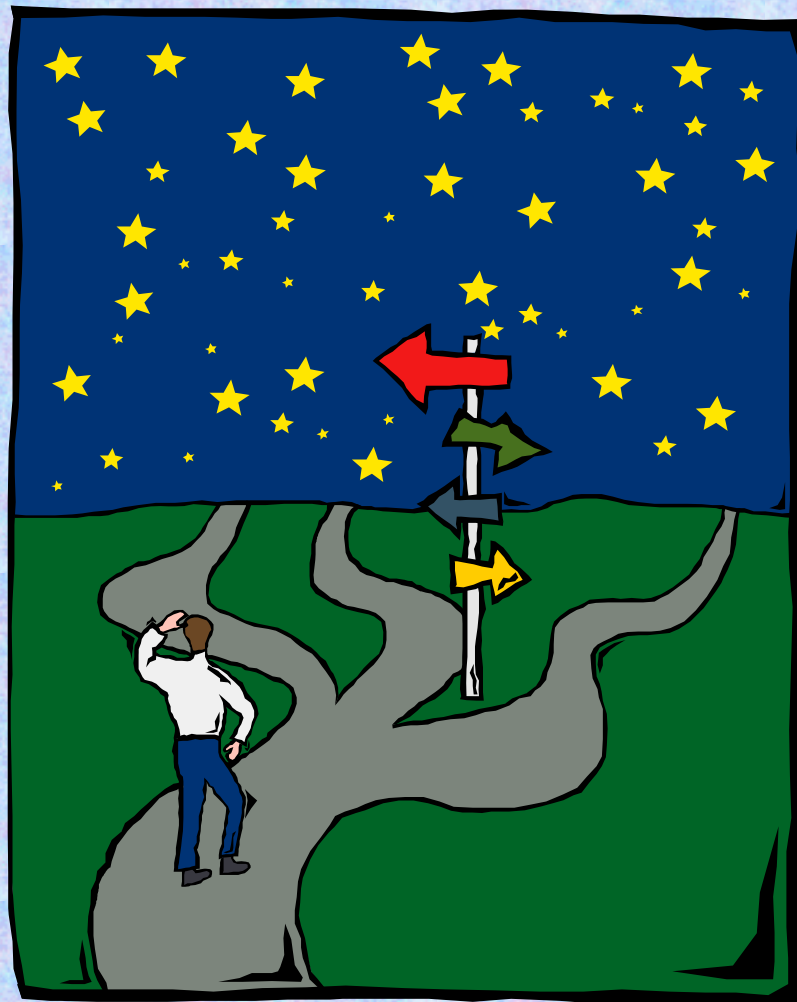
* *In millions of pounds per year.*

James River Basin Sediment Change with 2010 Goal*



* *In tons per year.*

How Do We Get There From Here?



Tributary Strategy Planning Steps & Timeline

**First Tributary Strategy
developed
*1999***



**New Load Reductions
Set by USEPA
*April 2003***



**Launch Tributary
Strategy Revision
*July 2003***

**Tributary Teams
review allocations**

**Meetings
*Aug-Nov 2003***

**Consensus on
Scenarios**

**Draft Strategy
*Fall 2003***

**Public Comment
Period**

**Revise Strategies
*Early 2004***

**Tributary
Strategy
Approved
*April 2004***



**Refine Plans
Locally**



**Implement/Track
Refined Plans**

Tributary Strategy Teams With Stakeholder Groups

Potomac River

Team Leader: Marc Aveni
Potomac Regional Manager
maveni@dcrr.state.va.us
Ph: (540) 347-6420

Shawn Smith
CBLAD, Principal Planner
Ph: (804) 371-0609

Stakeholder Group:
Potomac Watershed Roundtable

Rappahannock River

Team Leader: Matt Criblez
York & Rappahannock Regional Manager
mdcriblez@dcrr.state.va.us
Ph: (804) 443-6752

Alexander Adams
CBLAD, Senior Planner
Ph: (804) 371-6222

Stakeholder Group:
Rappahannock River Basin Commission

Shenandoah River

Team Leader: Tamara Keeler
Shenandoah Regional Manager
Ph: (540) 332-9991
tkeeler@dcrr.state.va.us

Stakeholder Group:
Pure Water 2000

York River

Team Leader: Matt Criblez
York & Rappahannock Regional Manager
mdcriblez@dcrr.state.va.us
Ph: (804) 443-6752

Bob Ehrhart
DEQ, Chesapeake Bay Program
Ph: (804) 698-4466

Nancy Miller
CBLAD, Senior Planner
(804) 225-3441

Stakeholder Group:
York Watershed Council

Upper James River

Team Leader: Tamara Keeler
Shenandoah Regional Manager
Ph: (540) 332-9991
tkeeler@dcrr.state.va.us

Bob Ehrhart
DEQ - Chesapeake Bay Program
Ph: (804) 698-4466

Stakeholder Group:
Upper James River Conservation Roundtable

Middle James River

Team Leader: Michael Bowman
James Regional Manager
Ph: (804) 527-4484
mbowman@dcrr.state.va.us

Bob Ehrhart
DEQ, Chesapeake Bay Program
Ph: (804) 698-4466

Roberta Rhur
CBLAD - Senior Planner
Ph: (804) 786-1795

Stakeholder Group:
Piedmont James River Roundtable

Lower James River

Team Leader: Ernie Brown
Albemarle, Chowan & Coastal Regional Manager
ebrown@dcrr.state.va.us
Ph: (757) 925-2468

Brad Belo
CBLAD, Senior Planner
Ph: (804) 371-7500

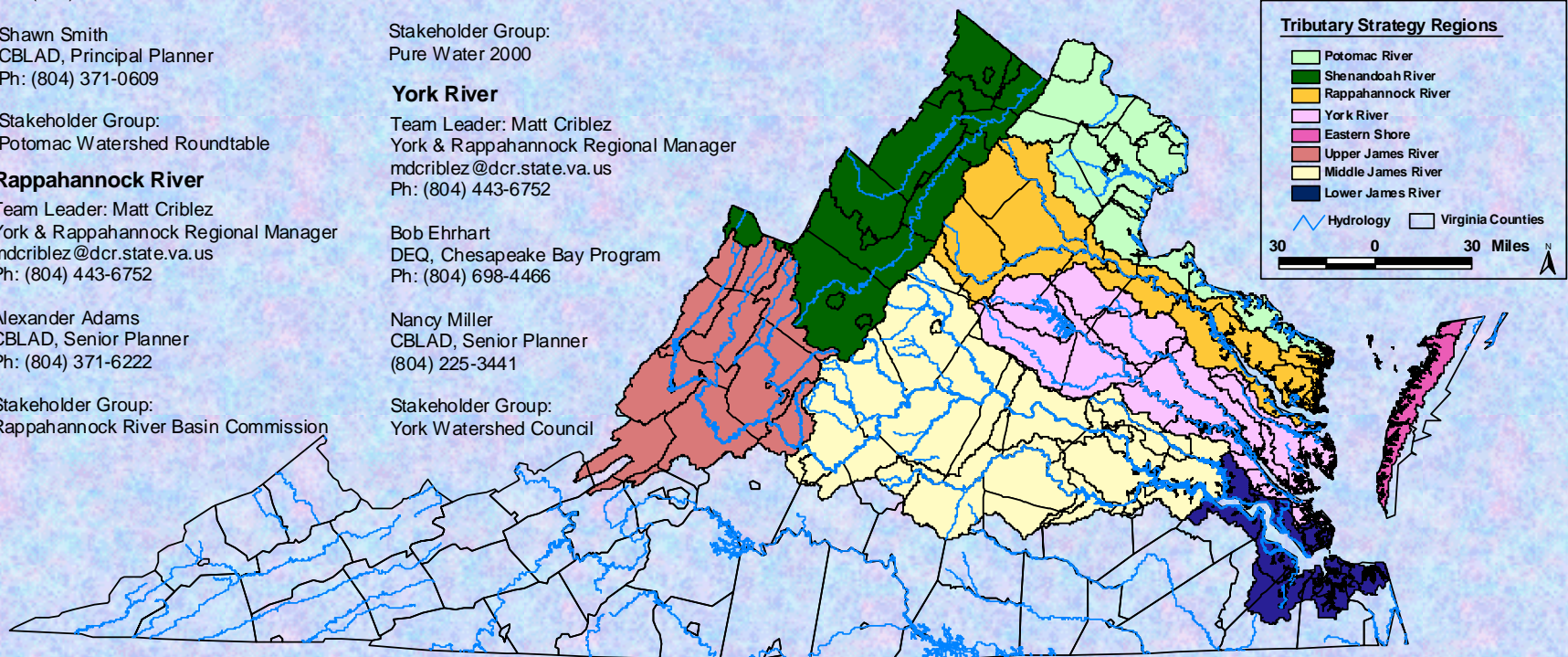
Stakeholder Group:
Hampton Roads Lower James River Roundtable

Eastern Shore

Team Leader: Ernie Brown
Albemarle, Chowan & Coastal Regional Manager
ebrown@dcrr.state.va.us
Ph: (757) 925-2468

Shawn Smith
CBLAD, Principal Planner
Ph: (804) 371-0609

Stakeholder Group:
Eastern Shore Watersheds Network



Created by:
Department of Conservation & Recreation
James Watershed Office
3800 Stillman Parkway, Suite 102
Richmond, Virginia 23233
Ph: (804) 527-4484

Data Sources:
EPA Chesapeake Bay Program
EPA BASINS, Version 3.0

June 2003

Key Considerations for Revising Tributary Strategies

- Build on existing strategy and network
- Wealth of Chesapeake Bay Program data
- Account for existing accomplishments
- Use the monitoring data collected
- Voluntary, cooperative approach
- Seek common agreement on what needs to be done
- Key principles:
 - Cost-effectiveness -- Feasibility -- Equity

Lower James River Tributary Team

- Use existing structures such as:
 - Lower James River Roundtable
- Technical assistance and review
 - HRPDC Environmental Committees
 - Local, State, federal agencies
 - Network workgroups

Stakeholder Involvement

"Trib Strategy Teams" :

- Local governments
- Planning district commissions
- Soil and water conservation districts
- Wastewater treatment facilities
- Conservation organizations
- Business interest groups
- Citizens



Stakeholder Involvement (cont'd)

- State agencies
 - Federal agencies (land management)
 - Industry
 - Real estate/ Homebuilder associations
 - Agro -business
 - Watermen
 - Marinas
- 
- A photograph showing four people seated around a white table in a meeting room. From left to right: a woman with dark hair in a blue shirt, a woman with brown hair in a blue shirt, a man with short dark hair in a dark polo shirt, and a woman with short brown hair and glasses in a dark blazer. The woman on the far right is gesturing with her right hand while speaking. On the table are several items: a white paper cup with a straw, a black folder, and some papers. The background is a plain wall with a door visible on the right.

Process: *Local* Planning

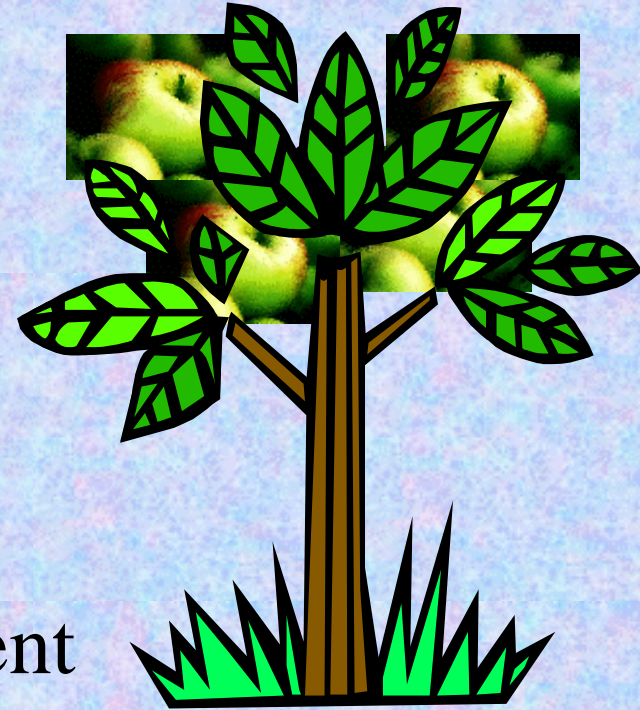
- Basin-specific process
- Local flexibility in meeting goals
- Trib team will help define process & carry out work
- Need to identify and build on past success
 - e.g. SWCDs, HRPDC accomplishments
- Continuing refinement of trib strategy to reflect new actions & commitments

Local Planning

- Expand participation to ultimately include all types of land users
 - e.g. suburban homeowners – urban nutrient management
- Accent on developing very local buy-in
- Prominence of local governments
 - Land Use
 - Comprehensive Planning
- Public comment period

Where Do We Look for Reductions?

- Agricultural practices
- Waste-water treatment
- Urban/suburban storm water
- Land use, low impact development
- Educating the public



How Do We Look for Reductions?

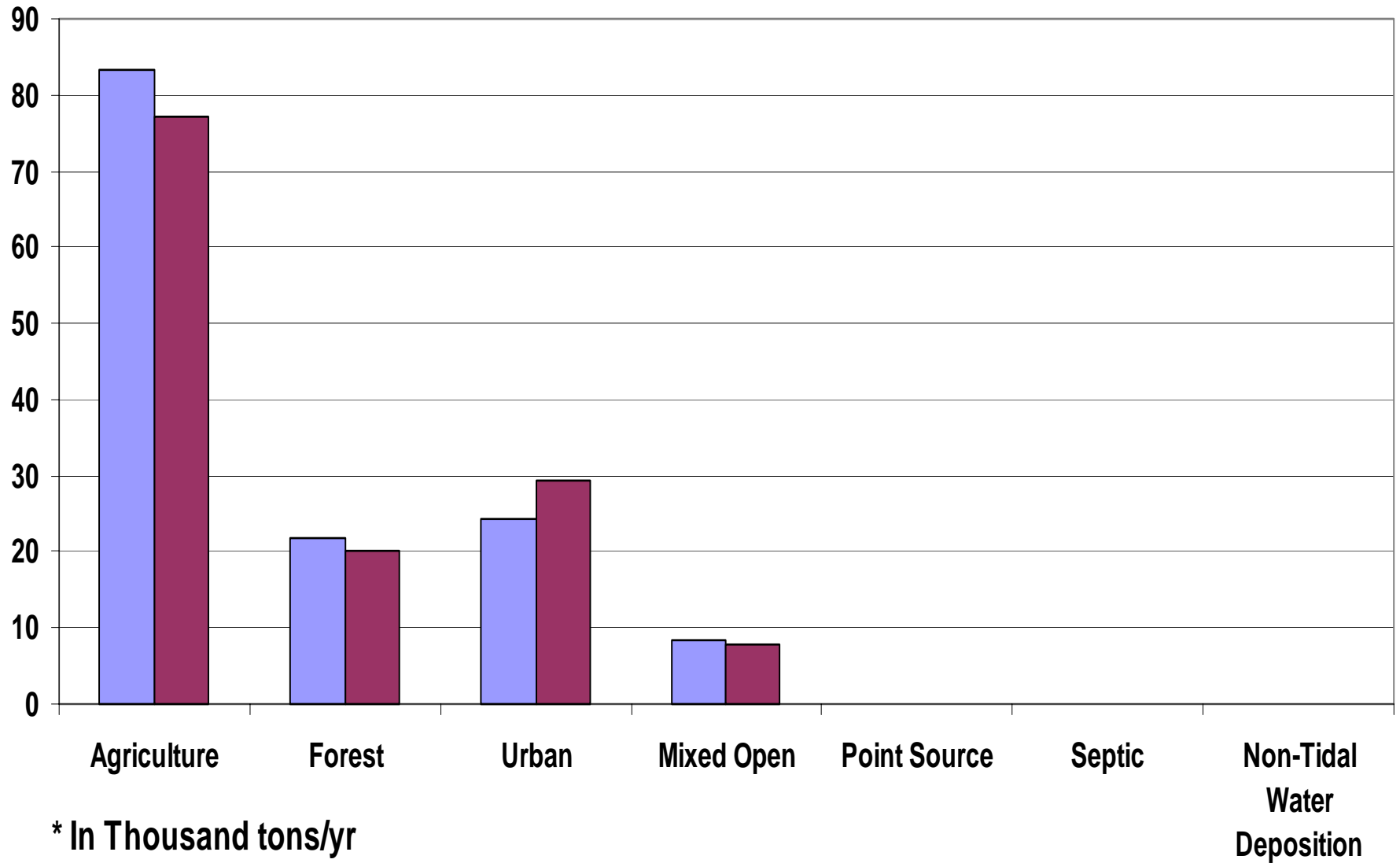
- Locally with existing resources
- Locally requiring new resources
- Statewide initiatives

What Tools Do We Have?

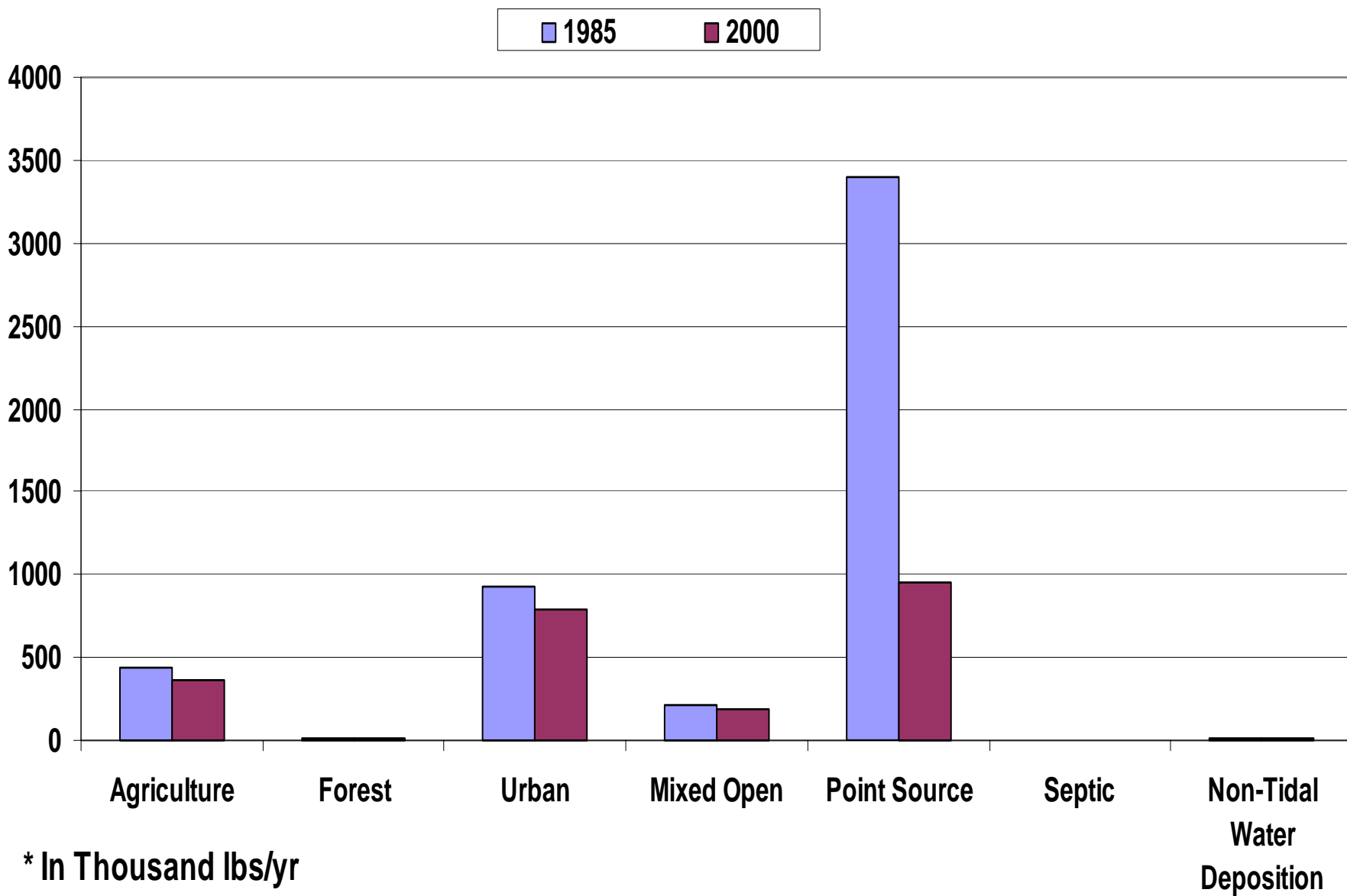
- Extensive BMP information
- Use “scenario builder” to explore options
- Chesapeake Bay Watershed Model
- NPDES monitoring
- Technical expertise of Bay Program
- Loads by source categories

Lower James River Basin Sediment Loadings by Source Catagory

1985 2000

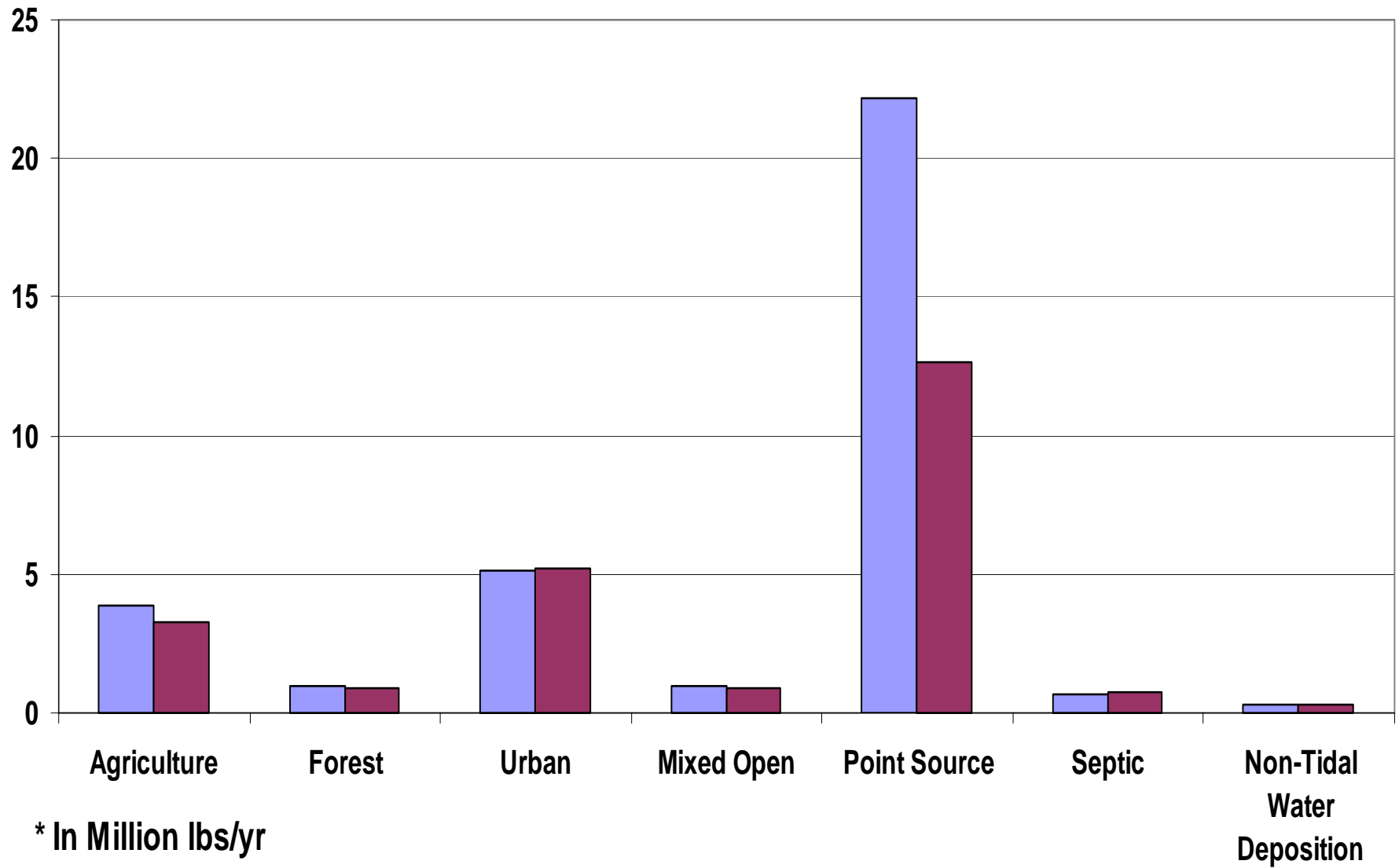


Lower James River Basin Phosphorus Loadings by Source Catagory

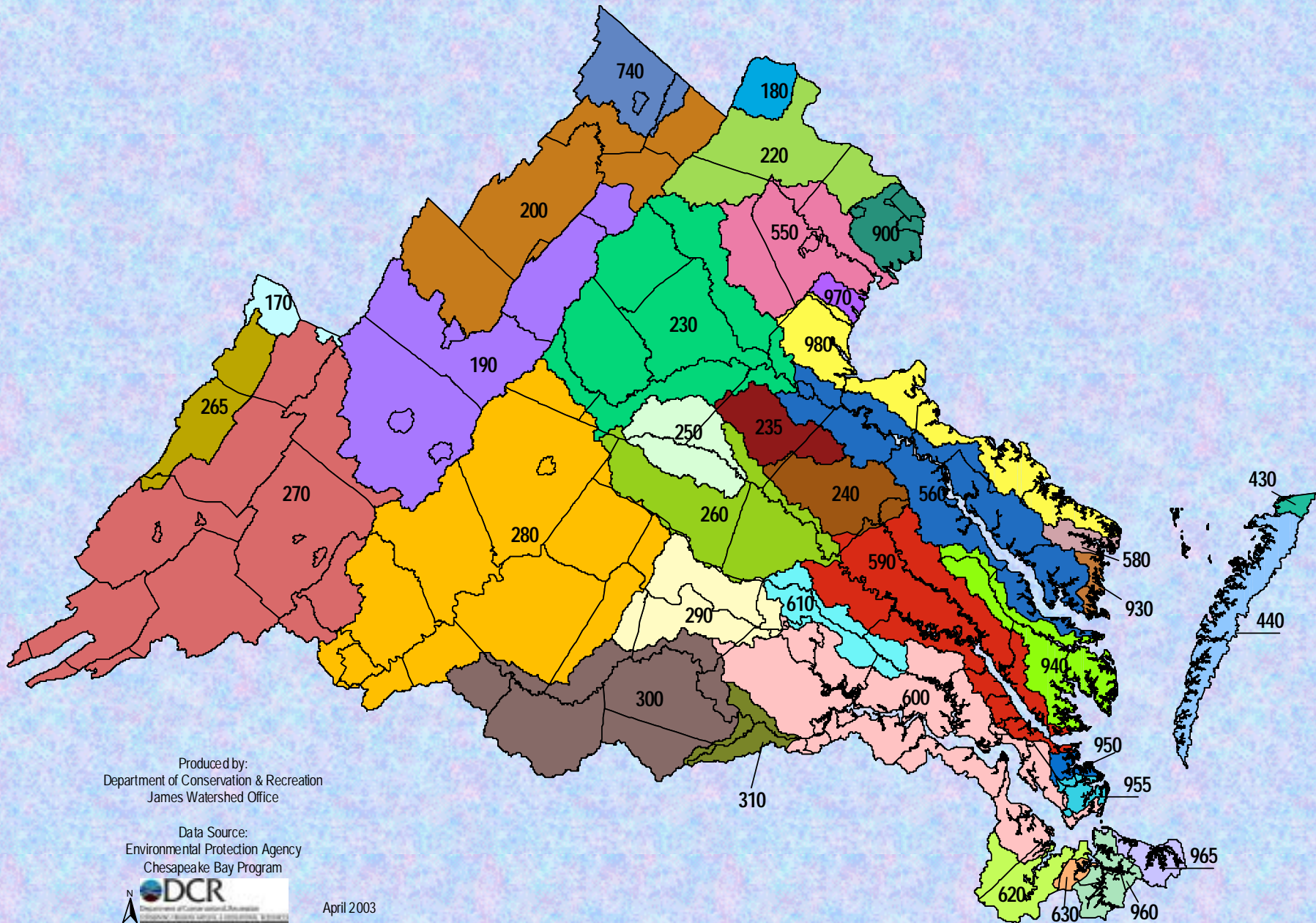


Lower James River Basin Nitrogen Loadings by Source Catagory

1985 2000



EPA Chesapeake Bay Program - Virginia Chesapeake Bay Model Segments



What's Included in the Revised Strategies?

- A “snapshot” of the basin
- Actions to reduce loads to meet goal
- Discussion of funding needs and options
- Tracking method for loads, reductions and cap
- Phased strategy implementation

What's Included?

- Status/Progress of N, P, sediment reductions
 - Successful reductions thus far
- Specific implementation strategies
 - BMPs – what/where
 - Local government initiatives – e.g. LID
 - Point Source upgrades
 - Watershed Planning

2004 - 2010

- Continuing refinement of Tributary Strategy
- Dynamic document
 - Implement existing programs, projects
 - Refine practices, costs, funding
 - Identify and implement new/unique/innovative programs and practices
 - Marketing strategy to engage new array of stakeholders

What is the Next Step?

- Ensure a diverse, *active* Tributary Team
 - Team members that represent all sectors and areas of the watershed
- Tributary Team meeting – Late-August
- Need *commitment* by Team members
 - Revisions on *very* aggressive schedule
 - *Much* work to do
- Trib Team to conduct as much work as possible via committee, email, conference calls, etc.
 - Let's use our time to do the work, not travel

Questions ???

Ernie Brown

DCR Regional Manager

ebrown@dcr.state.va.us

757-925-2392

Noah Hill

Albemarle, Chowan & Coastal

Watershed Field Coordinator

nhill@dcr.state.va.us

757-925-2468